

Application No. 10/519,601
Attorney Docket No. 3135-048013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/519,601 Confirmation No. 9486
Applicant : MATHIJS THEODORUS WILHELMUS VAN DE VEN
Filed : September 16, 2005
Title : GRIPPING MEANS FOR GRIPPING A SIGNAL LINE
Group Art Unit : 2839
Examiner : Chandrika Prasad
Customer No. : 28289

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF R. TIELBEKE
UNDER 37 C.F.R. §1.132

Sir:

I, R. Tielbeke, a Managing Director of Lightspeed Inventions in the above-identified application, hereby declare and state as follows:

1. I am a citizen of Holland, resident of Asten. I have a degree from the University of Zwolle. I have over five (5) years of experience in the field of sensors and, in particular, in gripping devices adapted for gripping signal carrying lines. I have worked in the field of sensors for five (5) years, including the design, engineering, manufacturing and sales as Managing Director of sensors and gripping devices for gripping signal carrying lines. I am the Managing Director of Lightspeed Inventions, a sensor company.

2. I am familiar with the subject matter of the above-identified patent application, including the amended claims. The present invention, as embodied by independent claim 19, is directed to a gripping means for gripping on a signal line, which signal line is embodied such that the signal that is fed through the line is adapted to be influenced by loads exerted externally on the signal line, which gripping means comprise at least one rigid

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component adapted to grip on a sleeve of the signal line, wherein the gripping means also comprise a spring element engaging on the rigid component to exert a biasing force to the rigid component and away from the signal line to remove a load of the rigid component from the signal line, wherein the signal line is an optical cable wherein the spring element engaging on the at least one rigid component allows for displacement of the gripped cable by external forces and wherein the gripping means are adapted to distort a signal through the signal line when the signal is displaced by external forces, and wherein in an unloaded situation of the gripping means, the passage of a signal through the signal line is not impeded.

3. I have reviewed the cited references, United States Patent No. 4,383,239 to Robert and United States Patent No. 4,976,157 to Berthold. Robert is concerned with preventing/protecting the signal line from extraneous external loads which can provide inaccurate readings as opposed to the claimed feature of exerting a biasing force to the rigid component and away from the signal line to remove a load of the rigid component from the signal line. Berthold is concerned with a fiber optic flow sensor situated in a conduit 12 which encloses two fiber optic cables 15, 16 held by a holding mechanism or tube 14. The fiber optic cables 15, 16 are axially aligned but separated by a gap 18. Fluid flow in the conduit, as depicted by 24 produces a deflection of tube 14 and the attenuation of light transmitted from one fiber to the other. This deflection is proportional to the flow rate allowing for the measurement of this flow rate.

4. Robert teaches that the "rigid component 3" directly contacts the "sensor 4" and the "spring element 2" is a shock absorbing material positioned between "rigid component 3" and "rigid component 1". It does not appear that this "spring element 2" is capable of removing a load of "rigid component 3" from the "sensor line 4" as set forth in the claims. Berthold differs from the present invention in that when a load is applied to tube 14 via fluid flow force in a perpendicular direction with respect to the tube 14, the tube 14 deflects, causing the line sensors to move and measure the flow rate 24 moving through conduit 12. Additionally, component "26" in Berthold is not a "rigid component", but is actually an obstruction used to increase the cross-sectional area of tube 14 to increase the sensitivity and/or

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amount of deflection of the tube to aid in the measurement of the flow forces on the sensor holding mechanism (col. 3, line 42).

5. The devices of Robert and Berthold are completely different than the present invention wherein the resilient member exerts a biasing force to the rigid member away from the signal line. Accordingly, the Robert and Berthold patents work in a completely different manner than each other, as well as, in a completely different manner than the presently claimed invention.

6. The claimed gripping means for signal lines in the above-referenced application has enjoyed commercial success, with little to no advertising expense (e.g., less than euro 5,000.00). Up to the present, the claimed gripping means for signal lines have been sold as at least 25 different products to 15 different customers in the past three (3) years.

7. One of the applications in which the Lightspeed technique is being used recently is the protection of the junction between the steps and the sideboard of a rolling staircase. Because of stricter legislation, in which the United States of America is leading, to prevent accidents because people get stuck, all major rolling staircase companies are forced to look for better detection techniques than the current technical possibilities. Especially, the technical possibility to make a distinction between somebody really getting stuck and somebody just kicking against the sideboard is a feature. In cooperation with Thyssen Krupp, one of the market leaders in the rolling staircase and moving walkway industry throughout the world, the Lightspeed engineers are standardizing the Lightspeed technology in the Thyssen Krupp staircases. From the other three companies of the big four in the world, with Schindler and Kone, serious talks have recently already started as a result of the initial technical presentation and an appointment for the initial technical presentation is also being made with Otis.

8. The invention enjoys significant commercial success internationally, in technical areas demanding precise and reliable sensors. The inventors have developed a plethora of applications for the invention in cooperation with a number of partners in various technological areas, being renowned companies that typically are innovative leaders in their

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respective markets. The inventors have licensed the invention to their industrial partners, which is an indication the invention is perceived as a true improvement in the field of line sensor gripping means, which opens up new possibilities and improvements that were previously impossible. A list of companies and the applications the invention is applied in, is listed below in the attached Table. Part of these applications is still in development; however, for indicated applications, actual products are being produced, sold and used worldwide.

9. I declare further that all statements made herein of my own knowledge are true and that all statements made on the information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable with fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

(Signature)

Mr. R. TIELBEKE
(Printed Name)

ASTEN, 7 JANUARY 2010
(Date)

PRODUCT MARKT COMBINATIE OVERZICHT (PMC'S)

Herewith an overview of the different Product Market Combinations that are under operation at this moment
The different Product Market Combinations are in different stages of development

Nr Security:

- | | | |
|---|-------------------|-------------|
| 1 | Roof detection | 3 products |
| 2 | Fence detection | Spancable |
| 3 | Surface detection | 3 products |
| 4 | Ground detection | Ground mats |

Partner

GPS perimeter systems
GPS perimeter systems
GPS perimeter systems
GPS perimeter systems

Safety:

- | | |
|---------------------------|-------------|
| 5 | Safety edge |
| 6 | Mats |
| 7 | Bumper |
| 8 | Stepsensor |
| More products will follow | |

Jokab Safety
Jokab Safety
Jokab Safety
Jokab Safety

Overig:

- | | | | |
|----|-----------------|--------------------------|---|
| 9 | Automotive | Kneel safety | Scania / van Hool |
| 10 | Health care | Bed detection | TB Nederland / Völker AG |
| 11 | Health care | Bed,- en chair detection | Eaton Holec Home Care |
| 12 | Elevators | Kooidak mat (mat on top) | Wittur |
| 13 | Elevators | Putmat (mat down) | Wittur |
| 14 | Elevators | Mat with speedmaximiser | Wittur |
| 15 | Escalators | Walking detection | Peritech (Otis, Kone, Schindler, Thyssen Group) |
| 16 | Escalators | Kamplaat detection | Peritech (Otis, Kone, Schindler, Thyssen Group) |
| 17 | Escalators | Bovenband detection | Peritech (Otis, Kone, Schindler, Thyssen Group) |
| 18 | Escalators | Counting and Weighing | Peritech (Otis, Kone, Schindler, Thyssen Group) |
| 19 | Traffic | Bicycle detection | City tec |
| 20 | Traffic | Pedestrian detection | City tec |
| 21 | Traffic | Tram detection | City tec |
| 22 | Traffic | Entrance parking areas | City tec |
| 23 | Sport / leisure | Dog detection wall | Doggy's Playground |
| 24 | Sport / leisure | Dog detection table | Doggy's Playground |
| 25 | Sport / leisure | Dog detection bridge | Doggy's Playground |
| 26 | Sport / leisure | Dog detection wip | Doggy's Playground |
| 27 | Fire detection | Roofing | Seclusive |
| 28 | Infrastructure | Detection areas in roads | Dura Vermeer |

Monitoring (moisture, temperature etc):

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|----|--------------------------|---|---------------------------|
| 29 | Dike monitoring | Warning system for to prevent dikes from collapsing | Dike Survey / TNO |
| 30 | Health care | Intelligent matras | Völker AG |
| 31 | Intelligent road surface | For predicting maintenance and replacement | Dura Vermeer / van Gelder |

26 June 2009

R. TIEBEKE

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